



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-2458; Directorate Identifier 2014-NM-122-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Airbus Model A318, A319, A320, and A321 series airplanes. This proposed AD was prompted by reports of in-flight loss of fixed and hinged main landing gear (MLG) fairings, and reports of post-modification MLG fixed fairing assemblies that have wear and corrosion. This proposed AD would require, for certain airplanes, repetitive replacements of the fixed fairing upper and lower attachment studs of both the right-hand (RH) and left-hand (LH) MLG; and repetitive inspections for corrosion, wear, fatigue, cracking, and loose studs of each forward stud assembly of the fixed fairing door upper and lower forward attachment of both RH and LH MLG; and replacement if necessary. This proposed AD also provides an optional terminating modification for the repetitive replacements of the fixed fairing upper and lower attachment studs. We are proposing this AD to prevent in-flight detachment of an MLG fixed fairing and consequent damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-2458; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-2458; Directorate Identifier 2014-NM-122-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will

also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2015-0001R1, dated January 15, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Model A318, A319, A320, and Model A321 series airplanes. The MCAI states:

Several occurrences of in-flight loss of main landing gear (MLG) fixed and hinged fairings were reported. The majority of reported events occurred following scheduled maintenance activities. One result of the investigation was that a discrepancy between the drawing and the maintenance manuals was discovered. The maintenance documents were corrected to prevent mis-rigging of the MLG fixed and hinged fairings, which could induce fatigue cracking.

Airbus issued Service Bulletin (SB) A320-52-1083, providing instructions for a one-time inspection of the MLG fixed fairing composite insert and the surrounding area, replacement of the adjustment studs at the lower forward position and adjustment to the new clearance tolerances. That SB was replaced by Airbus SB A320-52-1100 (mod 27716) introducing a re-designed location stud, rod end and location plate at the forward upper and lower leg fixed-fairing positions. Subsequently, reports were received of post-mod 27716 / post-SB A320-52-1100 MLG fixed fairing assemblies with corrosion, which could also induce cracking.

This condition, if not detected and corrected, could lead to further cases of in-flight detachment of a MLG fixed fairing, possibly resulting in injury to persons on the ground and/or damage to the aeroplane.

To address this potential unsafe condition, EASA issued AD 2014-0096 [http://ad.easa.europa.eu/blob/easa_ad_2014_0096_superseded.pdf/AD_2014-0096_1] to require [for certain airplanes] repetitive detailed inspections (DET) of the MLG fixed fairings, and, depending on findings, accomplishment of applicable corrective actions. That [EASA] AD also prohibited installation of certain MLG fixed fairing rod end assemblies and studs as replacement parts on aeroplanes incorporating Airbus mod 27716 in production, or modified in accordance with Airbus SB A320-52-1100 (any revision) in service.

Since EASA AD 2014-0096 was issued, Airbus developed an alternative inspection programme to meet the AD requirements. In addition, a terminating action (mod 155648) was developed, which is to be made available for in service aeroplanes through Airbus SB A320-52-1165.

For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2014-0096, which is superseded, and adds an optional terminating action for the repetitive inspections. For post-mod aeroplanes, i.e. incorporating Airbus mod 155648 in production, or modified by Airbus SB A320-52-1165 in service, the only remaining requirement is to ensure that pre-mod components are no longer installed.

Prompted by these developments, EASA issued AD 2015-0001, retaining the requirements of EASA AD 2014-0096, which was superseded, and adding an optional terminating action for the repetitive inspections. For post-mod aeroplanes, i.e. incorporating Airbus mod 155648 in production, or modified by Airbus SB A320-52-1165 in service, the only remaining requirement is to ensure that pre-mod components are no longer installed.

Since that [EASA] AD was issued, it was discovered that a certain plate support, Part Number (P/N) D5285600620000 as listed in Table 3 of the [EASA] AD, remains part of the post SB A320-52-1165 configuration and is therefore not affected by any prohibition of installation – paragraph (11) of the [EASA] AD. In addition, an error was detected in

Table 1 of the [EASA] AD (missing P/N plate support) and paragraph (9) was found to be incorrectly worded.

For the reasons described above, this [EASA] AD is revised to introduce the necessary corrections.

Required actions also include, for airplanes in Airbus pre-modification 27716 and pre-Airbus Service Bulletin A320-52-1100 configuration on which certain components have been installed, repetitive replacements of the fixed fairing upper and lower attachment studs of both the RH and LH MLG. An optional terminating modification also is provided for the repetitive replacements of the fixed fairing upper and lower attachment studs. The optional terminating modification includes a resonance frequency inspection for debonding of the composite insert and delamination of the honeycomb area around the insert, and applicable corrective actions if necessary; and installation of new studs, rod ends, and location plates at the forward upper and lower leg fixed-fairing positions. An additional optional terminating modification, for airplanes in pre-modification 27716 and pre-Airbus Service Bulletin A320-52-1100 configuration, includes installation of a locking device, new studs, rod ends, and location plates at the forward upper and lower leg fixed-fairing positions.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-2458.

Related Service Information under 1 CFR part 51

- Airbus has issued Service Bulletin A320-52-1100, Revision 01, dated March 12, 1999. This service information describes procedures for modification of the airplane to post-modification 27716 configuration (by replacing the location stud, rod end, and location plate at the forward upper and lower leg fixed-fairing positions of the MLG door assemblies). The modification includes a resonance frequency inspection for debonding of the composite insert and delamination of the honeycomb area around the insert, and applicable corrective actions. Corrective actions include repairing the insert. The actions in this service information are an optional terminating modification.

- Airbus has also issued Service Bulletin A320-52-1163, dated February 4, 2014. This service information describes procedures for inspection of the fixed fairing forward attachments of the MLG door assemblies, and replacement of the fixed fairing upper and lower attachment studs of the RH and LH MLG door assemblies.

- Airbus has issued Service Bulletin A320-52-1165, dated November 3, 2014. This service information describes procedures for replacing the fairing attachment stud assemblies of the MLG door assembly with new assemblies. The actions in this service information are an optional terminating modification.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Costs of Compliance

We estimate that this proposed AD affects 851 airplanes of U.S. registry.

We also estimate that it would take about 18 work-hours per product to comply with the basic inspection requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$4,110 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$4,799,640, or \$5,640 per product.

We estimate that the optional terminating modification would take about 18 work-hours and require parts costing \$4,110, for a cost of \$5,640 per product.

In addition, we estimate that any necessary follow-on actions would take about 18 work-hours and require parts costing \$4,110, for a cost of \$5,640 per product. We have no way of determining the number of aircraft that might need these actions.

According to the manufacturer, some of the costs of this proposed AD might be covered under warranty, thereby reducing the cost impact on affected individuals. We do

not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Airbus: Docket No. FAA-2015-2458; Directorate Identifier 2014-NM-122-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the Airbus airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Airbus Model A318-111, -112, -121, and -122 airplanes.

(2) Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(3) Airbus Model A320-211, -212, -214, -231, -232, and -233 airplanes.

(4) Airbus Model A321-111, -112, -131, -211, -212, -213, -231, and -232

airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 52, Doors.

(e) Reason

This AD was prompted by reports of in-flight loss of fixed and hinged main landing gear (MLG) fairings, and reports of post-modification MLG fixed fairing assemblies that have wear and corrosion. We are issuing this AD to prevent in-flight detachment of an MLG fixed fairing and consequent damage to the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repetitive Replacements

For airplanes in pre-modification 27716 and pre-Airbus Service Bulletin A320-52-1100 configuration, with any of the components installed that are identified in paragraphs (g)(1) through (g)(5) of this AD: At the applicable compliance time specified

in paragraph (h) of this AD, replace fixed fairing upper and lower attachment studs of both right-hand (RH) and left-hand (LH) MLG, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, dated February 4, 2014. Repeat the replacements thereafter at intervals not to exceed 6,500 flight cycles.

- (1) Plate – support having part number (P/N) D5284024820000.
- (2) Plate – support having part number (P/N) D5284024820200.
- (3) Stud – adjustment having P/N D5284024420000.
- (4) Rod end assembly (lower) having P/N D5284000500000.
- (5) Rod end assembly (upper) having P/N D5284000600000.

(h) Compliance Times for the Requirements of Paragraph (g) of this AD

Do the initial replacement required by paragraph (g) of this AD at the latest of the times specified in paragraphs (h)(1) through (h)(4) of this AD.

- (1) Before the accumulation of 6,500 total flight cycles since the airplane's first flight.
- (2) Within 6,500 flight cycles since the last installation of a pre-modification 27716 stud on the airplane.
- (3) Within 1,500 flight cycles after the effective date of this AD.
- (4) Within 8 months after the effective date of this AD.

(i) Repetitive Inspections

For airplanes in post-modification 27716 or post-Airbus Service Bulletin A320-52-1100 configuration, with any of the components installed that are identified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD: At the applicable compliance time

specified in paragraph (j) of this AD, do a detailed inspection of the LH and RH stud assemblies of the fixed fairing door upper and lower forward attachments of both RH and LH MLG for indications of corrosion, wear, fatigue, cracking, and loose studs, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, dated February 4, 2014. Repeat the inspection thereafter at intervals not to exceed 12 months. Replacement of both RH and LH MLG forward stud assemblies on an airplane, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, dated February 4, 2014, extends the interval for the next detailed inspection to 72 months; and the inspection must be repeated thereafter at intervals not to exceed 12 months.

- (1) Stud – adjustment having P/N D5285600720000.
- (2) Rod end assembly (lower) having P/N D5285600400000.
- (3) Rod end assembly (upper) having P/N D5285600500000.

(j) Compliance Times for the Requirements of Paragraph (i) of this AD

Do the initial inspection required by paragraph (i) of this AD at the latest of the times specified in paragraphs (j)(1) through (j)(4) of this AD.

- (1) Before the accumulation of 72 months since the airplane's first flight.
- (2) Within 72 months since the last installation of a post-modification 27716 assembly or since accomplishment of the actions specified in Airbus Service Bulletin A320-52-1100.
- (3) Within 1,500 flight cycles after the effective date of this AD.
- (4) Within 8 months after the effective date of this AD.

(k) Corrective Action

If any indication of corrosion, wear, fatigue, cracking, or loose studs of any forward stud assembly is found during any inspection required by paragraph (i) of this AD, except as specified in paragraph (l) of this AD: Before further flight, replace the upper and lower fixed fairing forward attachment assemblies of the RH and LH MLG, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, dated February 4, 2014; or Airbus Service Bulletin A320-52-1165, dated November 3, 2014.

(l) Corrective Action or Repetitive Inspections for Certain Corrosion Findings

If any corrosion is found during any inspection required by paragraph (i) of this AD on any MLG fixed fairing forward attachment stud assembly (upper, lower, LH or RH), but the corroded stud is not loose: Do the action specified in paragraph (l)(1) or (l)(2) of this AD.

(1) Before further flight, replace the affected assembly, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, dated February 4, 2014; or Airbus Service Bulletin A320-52-1165, dated November 3, 2014.

(2) Within 4 months after finding corrosion, and thereafter at intervals not to exceed 4 months, do a detailed inspection for indications of corrosion, wear, fatigue, cracking, and loose studs of the forward stud assembly of the affected (RH or LH) MLG, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, dated February 4, 2014.

(m) Corrective Action for Inspections Specified in Paragraph (l)(2) of this AD

If any indication of wear, fatigue, cracking, or loose studs of any forward stud assembly is found during any inspection required by paragraph (l)(2) of this AD: Before further flight, replace the affected (RH or LH) MLG fixed fairing forward attachment assembly, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, dated February 4, 2014; or Airbus Service Bulletin A320-52-1165, dated November 3, 2014.

(n) Terminating Action

(1) Replacement of parts on an airplane, as required by paragraph (g), (k), or (l)(1) of this AD, does not constitute terminating action for the repetitive inspections required by paragraph (i) of this AD, except as specified in paragraph (n)(3) of this AD.

(2) The repetitive replacements required by paragraph (g) of this AD may be terminated by modification of the airplane to post-modification 27716 configuration, including a resonance frequency inspection for debonding of the composite insert and delamination of the honeycomb area around the insert, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1100, Revision 01, dated March 12, 1999, provided all applicable corrective actions are done before further flight. Thereafter, refer to paragraph (i) of this AD to determine the compliance time for the next detailed inspection required by this AD.

(3) Modification of an airplane, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1165, dated November 3, 2014,

constitutes terminating action for actions required by paragraphs (g) through (m) of this AD for the airplane on which the modification is done.

(o) Exception to Certain AD Actions

An airplane on which Airbus Modification 155648 has been embodied in production is not affected by the requirements of paragraphs (g) and (i) of this AD, provided that no affected component, identified by part number as listed paragraphs (g)(1) through (g)(5) and (i)(1) through (i)(3) of this AD, has been installed on that airplane since first flight of the airplane.

(p) Parts Installation Prohibition

(1) For airplanes in pre-Airbus-Modification 27716 and pre-Airbus-Service-Bulletin A320-52-1100 configuration: No person may install a component identified in paragraphs (g)(1) through (g)(5) of this AD on any airplane after doing the actions provided in paragraph (n)(2) of this AD.

(2) For airplanes in post-Airbus-Modification 27716 and post Airbus Service Bulletin A320-52-1100 configuration: As of the effective date of this AD, no person may install a component identified in paragraphs (g)(1) through (g)(5) of this AD on any airplane.

(3) For airplanes in pre-Airbus-Modification 155648 and pre-Airbus-Service-Bulletin A320-52-1165 configuration: No person may install a component identified in paragraphs (g)(1) through (g)(5) and (i)(1) through (i)(3) of this AD on any airplane after doing the actions provided in paragraph (n)(3) of this AD.

(4) For airplanes in post-Airbus-Modification 155648 and post-Airbus-Service-Bulletin A320-52-1165 configuration: As of the effective date of this AD, no person may install a component identified in (g)(1) through (g)(5) and (i)(1) through (i)(3) of this AD on any airplane.

(q) Credit for Previous Actions

This paragraph provides credit for optional actions provided by paragraph (n)(2) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-52-1100, dated December 7, 1998, which is not incorporated by reference in this AD.

(r) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the

manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(s) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2015-0001R1, dated January 15, 2015, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-2458.

(2) For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on June 30, 2015.

Jeffrey E. Duvon,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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